

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Quality Metal Products

Illinois Manufacturing Extension Center

Quality Metal Products Cuts Defects, Improves On-time Delivery

Client Profile:

Quality Metal Products (QMP) is a tier-one producer of engine components for the construction equipment industry. The company employs 120 people at its facility in Peoria, Illinois.

Situation:

"We really needed to focus on quality. It's in our name, but the rules have changed." The 'rules' referred to by Jo Ellen Dunbar, Vice President of Quality Metal Products, involve requirements that many multi-nationals are placing on their key suppliers to substantially reduce the number of defective parts. As a tier-one producer of engine components for the construction equipment industry, QMP had to dramatically improve delivered quality. Failure to do so would result in lost business from its principal customer and limit the company's ability to compete for new work. Dunbar and her team started their quality transformation journey by engaging the Illinois Manufacturing Extension Center (IMEC), a NIST MEP network affiliate.

Solution:

IMEC assisted Quality Metal Products with their Production Part Approval Process (PPAP) by integrating ordering data into their manufacturing information system, accelerating the ability to respond to a purchase order and expedite shipments. IMEC also conducted Advance Product Quality Planning (APQP) training to help QMP's team ensure that parts could be manufactured to a drawn specification. Root cause and process control methods were deployed to identify sources of quality problems and eliminate variance at the source. Dunbar's team created lighted process boards with instructions and placed them close to operator work cells. Every associate received upgraded training in blue print reading, Geometric Dimension and Tolerance, and gauging. Concurrently, the company worked with IMEC and its main customer to map its Value Streams and eliminate wasted, non-value steps. To rationalize its 8,000 part numbers, QMAP developed a wireless supermarket replenishment system to move product in sequence and keep inventories level.

Results:

- * Reduced defect rate from 3,000 to 187 parts per million.
- * Achieved 100 percent PPAP delivery.
- * Achieved on-time delivery rate of 95.6 percent.

Testimonial:

"Our customer is ecstatic and our employees are energized. IMEC provided us with the capabilities to do this on our own."

Jo Ellen Dunbar, Vice President

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